

### What Is Claimed Is:

1. A method for assaying one or more target analytes in a sample, wherein said method comprises:
  - 5 (A) providing, for at least one target analyte to be assayed, a binding ligand of said target analyte, said binding ligand being bound to a solid support; wherein the ability of said binding ligand to bind to said target analyte is hindered by a steric interference that does not hinder the binding of all other target analyte(s) to all other binding ligand(s);
  - 10 (B) determining, for such target analyte(s), the presence, absence, activity or concentration of said target analyte(s), by determining the extent of binding between said target analyte and said solid-support-bound binding ligand of said target analyte.
- 15 2. The method of claim 1, wherein said steric interference is provided by said solid support.
3. A method for assaying one or more target analytes in a sample, wherein said method comprises:
  - 20 (A) providing, for at least one target analyte to be assayed, a binding ligand of said target analyte, said binding ligand being bound to a solid support; wherein said support is porous and wherein binding ligand is bound to said support within the pores of said support and said pores sterically interfere with the ability of said binding ligand to bind to said target analyte and wherein the ability of said binding ligand to bind to said target analyte is hindered by a steric  
25 interference that does not hinder the binding of all other target analyte(s) to all other binding ligand(s);
  - (B) determining, for such target analyte(s), the presence, absence, activity or concentration of said target analyte(s), by determining

the extent of binding between said target analyte and said solid-support-bound binding ligand of said target analyte.

4. The method of claim 3, wherein said support is controlled pore glass or a porous polymeric material.
5. A method for assaying one or more target analytes in a sample, wherein said method comprises:
  - (A) providing, for at least one target analyte to be assayed, a binding ligand of said target analyte, said binding ligand being bound to a solid support; wherein said support comprises bound interfering molecules that sterically interfere with the ability of said binding ligand to bind to said target analyte but does not hinder the binding of all other target analyte(s) to all other binding ligand(s);
  - (B) determining, for such target analyte(s), the presence, absence, activity or concentration of said target analyte(s), by determining the extent of binding between said target analyte and said solid-support-bound binding ligand of said target analyte.
6. A method for assaying one or more target analytes in a sample, wherein said method comprises:
  - (A) providing, for at least one target analyte to be assayed, a binding ligand of said target analyte, said binding ligand being bound to a solid support; wherein the ability of said binding ligand to bind to said target analyte is hindered by a chemical interference that does not hinder the binding of all other target analyte(s) to all other binding ligand(s);
  - (B) determining, for such target analyte(s), the presence, absence, activity or concentration of said target analyte(s), by determining the extent of binding between said target analyte and said solid-support-bound binding ligand of said target analyte.

7. The method of claim 6, wherein said chemical interference is provided by said solid support.
8. The method of claim 6, wherein said support comprises a plasticized organic phase particle, and wherein said binding ligand is immobilized within the confines of such particle.
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9. A method for assaying one or more target analytes in a sample, wherein said method comprises:
- (A) providing, for at least one target analyte to be assayed, a binding ligand of said target analyte, said binding ligand being bound to a solid support; wherein said support comprises bound interfering molecules that chemically interfere with the ability of said binding ligand to bind to said target analyte but which do not hinder the binding of all other target analyte(s) to all other binding ligand(s);
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- (B) determining, for such target analyte(s), the presence, absence, activity or concentration of said target analyte(s), by determining the extent of binding between said target analyte and said solid-support-bound binding ligand of said target analyte.
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10. The method of any of claims 5 or 9, wherein said interfering molecules hinder binding by presenting a partial barrier to binding by said target analyte.
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11. The method of claim 10, wherein said interfering or competing molecules comprise a tethered chain of at least 5 carbon atoms.
12. The method of any of claims 1 or 6, wherein said determination of the extent of binding between a target analyte and a binding ligand of said solid support comprises incubating said solid support in the presence of a detectably labeled binding ligand-binding molecule and determining the presence, absence, or concentration of detectably labeled binding ligand-
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binding bound to said solid-support-bound binding ligand of said target  
analyte.

13. The method of claim 12, wherein said detectable label of said detectably  
labeled binding ligand-binding molecule is a fluorescent label.
- 5 14. The method of any of claim 12, wherein said determination of the extent of  
binding between said target analyte and said binding ligand of said solid  
support said step (B) employs flow cytometry.
15. A composition for assaying a target analyte, which comprises a binding  
ligand of said target analyte bound to a solid support, wherein said support  
10 provides a steric interference that hinders the ability of said target analyte  
to bind to said bound binding ligand.
16. The composition of claim 15, wherein said support is porous and wherein  
binding ligand is bound to said support within the pores of said support and  
said pores sterically interfere with the ability of said binding ligand to bind  
15 to said target analyte.
17. The composition of claim 16, wherein said support is controlled pore glass  
or a porous polymeric material.
18. A composition for assaying a target analyte, which comprises a binding  
ligand of said target analyte bound to a solid support, wherein said support  
20 provides a chemical interference that hinders the ability of said target  
analyte to bind to said bound binding ligand.
19. The composition of claim 18, wherein said support comprises a plasticized  
organic phase particle, and wherein said binding ligand is immobilized  
within the confines of such particle.

20. The composition of any of claims 15 or 18, wherein said support comprises bound interfering molecules that interfere with the ability of said binding ligand to bind to said target analyte.
21. The composition of claim 20, wherein said interfering molecules hinder binding by presenting a partial barrier to binding by said target analyte.
22. The composition of claim 21, wherein said interfering molecules comprise a tethered chain of at least 5 carbon atoms.
23. A kit for assaying a target analyte, which comprises:
- (A) a first container containing a binding ligand of said target analyte bound to a solid support, wherein said support provides a steric or chemical interference that hinders the ability of said target analyte to bind to said bound binding ligand; and
- (B) a second container containing a detectably labeled binding ligand-binding molecule.
24. The kit of claim 23, wherein said detectable label is a fluorescent label.